CLAIMS

What is claimed is:

1.   A network-based server code auto upgrade method for use on a network system linked to a cluster of servers of the same type for upgrading the current version of server

5   code in each of the servers to a new version of server code;

the network-based server code auto upgrade method comprising:

linking via the network system to each of the servers;

inspecting the current version of server code installed in each of the servers via the network system;

10   comparing the current version of server code installed in each of the servers against the version of the new server code;

in the event that the current version of server code installed in any one of the servers is older than the version of the new server code, performing a remote upgrade procedure on that server via the network system to replace the current version of server code in that

15   server with the new version of server code.

2.   The network-based server code auto upgrade method of claim 1, wherein the network system is selected from the group comprising: intranet, extranet, and Internet.

3.   The network-based server code auto upgrade method of claim 1, wherein the servers are selected from the group of types comprising: file servers, data storage servers,

20   email servers, and proxy servers.

4.   The network-based server code auto upgrade method of claim 1, wherein the new version of server code is selected from the group comprising: BIOS, firmware control code, server management programs, embedded operating system, and application programs.

5.   The network-based server code auto upgrade method of claim 1, wherein the remote upgrade procedure is carried out at a user-specified time.

6.   A network-based server code auto upgrade system for use with a network system linked to a cluster of servers of the same type for upgrading the current version of server

5   code in each of the servers to a new version of server code;

the network-based server code auto upgrade system comprising:

an upgrade code storage module for storing the new version of server code;

a network interface module for linking via the network system to each of the servers;

10   a version inspection module for inspecting the current version of server code installed in each of the servers through the network interface module and via the network system;

a version comparison module, which is capable of comparing the current version of server code installed in each of the servers against the version of the new server code stored

15   in the upgrade code storage module, and which is capable of issuing an upgrade-enable message if the current version of server code installed in any one of the servers is older than the version of the new server code stored in the upgrade code storage module; and

a remote upgrade module, which is capable of being activated in response to the upgrade-enable message from the version comparison module to perform a remote upgrade

20   procedure on that server via the network system to replace the current version of server code in that server with the new version of server code stored in the upgrade code storage module.

7.   The network-based server code auto upgrade system of claim 6, wherein the network system is selected from the group comprising: intranet, extranet, and Internet.

8.   The network-based server code auto upgrade system of claim 6, wherein the servers are selected from the group of types comprising: file servers, data storage servers, email servers, and proxy servers.

9.   The network-based server code auto upgrade system of claim 6, wherein the new version of server code is selected from the group comprising: BIOS, firmware control code, server management programs, embedded operating system, and application programs.

10.   The network-based server code auto upgrade system of claim 6, further comprising:

        an upgrade time setting module for user to specify a time point for the remote upgrade module to perform the remote upgrade procedure at the user-specified time.

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